

# LINGAYA'S VIDYAPEETH

## SCHEME OF STUDIES

### SESSION: 2021-22

School: School of Architecture and Planning								Batch: 2021					
Department: Urban Planning								Year: I					
Course: M Plan								Semester: I					
SN	Cate- gory	Course Code	Course Name	Periods			Cr.	Evaluation Scheme					Subject Total Marks (CE+IP+EXP)/2
				L	T	P		Theory			Practical		
								CE	MSE	ESE	IP	EXP	
1	PC	MPL - 151	Planning History and Theory	0	0	4	2	-	-	-	100	100	100
2	PC	MPL - 153	Socio- Economic basis for Planning	0	0	4	2	-	-	-	100	100	100
3	BS-AE	MPL - 155	Planning Techniques	0	0	4	2	-	-	-	100	100	100
4	BS-AE	MPL - 157	Infrastructure and Transport Planning	0	0	4	2	-	-	-	100	100	100
5	PC	MPL - 159	Housing and Environmental Planning	0	0	4	2	-	-	-	100	100	100
6	SEC	MPL - 161	Studio Course	0	0	4	2	-	-	-	100	100	100
7	PC	MPL – 163	Studio	0	0	16	8	-	-	-	100	100	100
			Total---->	0	0	40	20	-	-	-	700	700	700

#### Abbreviations:

PC	: Programme Course
BS-AE	: Building sciences and applied engineering
SEC	: Skill Enhancement
L	: Lecture
T	: Tutorial
P	: Practical
CE	: Continuous Evaluation
MSE	: Mid Semester Examination
ESE	: End Semester Examination
IP	: Internal Practical
EXP	: External Practical
Cr	: Credit



# LINGAYA'S VIDYAPEETH

## SCHEME OF STUDIES

### SESSION: 2021-22

School: School of Architecture and Planning								Batch: 2021					
Department: Urban Planning								Year: I					
Course: M.Plan								Semester: II					
SN	Cate- gory	Course Code	Course Name	Periods			Cr	Evaluation Scheme					Subject Total Marks (CE+IP+EXP)/2
				L	T	P		Theory			Practical		
								CE	MSE	ESE	IP	EXP	
1	PC	MPL-102	City and Metropolitan Planning	1	0	2	2	20	-	-	80	100	100
2	BS-AE	MPL-104	Infrastructure Planning	1	0	2	2	20	-	-	80	100	100
3	BS-AE	MPL-106	Sustainable Planning and Development	1	0	2	2	20	-	-	80	100	100
4	BS-AE	MPL-108	Advanced Planning Techniques	1	0	2	2	20	-	-	80	100	100
5	PE	MPL-110A	Urban Information System and Spatial Analysis	1	0	2	2	20	-	-	80	100	100
		MPL-110B	Land Use and Transport Planning										
6	PC	MPL-152	Urban Planning Studio	0	0	16	8	-	-	-	100	100	100
7	SEC	MPL-154	Geo-Informatics – II & Management and Governance Plan	0	0	4	2	-	-	-	100	100	100
			Total---->	5	0	30	20	100	-	-	600	700	700

\*All students are required to undertake internship after Second Semester at a selected planning organization during the summer vacations for 6 to 8 weeks and obtain a certificate satisfactory performance.

#### **Abbreviations:**

PC : Programme Core Course  
 BS AE : Building Science and applied engineering  
 OE : Open Elective  
 PE : Professional Elective Course  
 SEC : Skill enhancement  
 L : Lecture  
 T : Tutorial  
 P : Practical  
 CE : Continuous Evaluation  
 MSE : Mid Semester Examination  
 ESE : End Semester Examination  
 IP : Internal Practical  
 EXP : External Practical  
 Cr : Credit

# LINGAYA'S VIDYAPEETH

## SCHEME OF STUDIES

### SESSION: 2022-23

School: School of Architecture and Planning								Batch: 2021					
Department: Urban Planning								Year: II					
Course: M. Plan								Semester: III					
SN	Cate- gory	Course Code	Course Name	Periods			Cr.	Evaluation Scheme					Subject Total Marks (CE+IP+EXP)/2
				L	T	P		Theory			Practical		
								CE	MSE	ESE	IP	EXP	
1	PC	MPL-201	Urban Development Management and Governance	1	0	2	2	20	-	-	80	100	100
2	PC	MPL-203	Politics and Planning	1	0	2	2	20	-	-	80	100	100
3	PC	MPL-205	Development Finance	1	0	2	2	20	-	-	80	100	100
4	PE	MPL-207A	Energy, Climate Change and Urban Development	1	0	2	2	20	-	-	80	100	100
		MPL-207B	Community Planning and Participation										
5	OE	MPL-209	Urban Risk & Disaster Management	1	0	2	2	20	-	-	80	100	100
6	PC	MPL-251	Urban Planning Studio - II	0	0	16	8	-	-	-	100	100	100
7	SEC	MPL-253	Geo-Informatics – III	0	0	4	2	-	-	-	100	100	100
			Total---->	5	0	30	20	100			600	700	700

#### Abbreviations:

PC : Programme Core Course  
 OE : Open Elective  
 PE : Professional Elective Course  
 SEC : Skill enhancement  
 L : Lecture  
 T : Tutorial  
 P : Practical  
 CE : Continuous Evaluation  
 MSE : Mid Semester Examination  
 ESE : End Semester Examination  
 IP : Internal Practical  
 EXP : External Practical  
 Cr : Credit

# LINGAYA'S VIDYAPEETH

## SCHEME OF STUDIES

### SESSION: 2022-23

School: School of Architecture and Planning								Batch: 2021					
Department: Urban Planning								Year: II					
Course: M. Plan								Semester: IV					
S N	Cate- gory	Course Code	Course Name	Periods			Cr.	Evaluation Scheme					Subject Total Marks (CE +IP+EXP)/ 2
				L	T	P		Theory			Practical		
								CE	MS E	ES E	IP	EXP	
1	PAECC	MPL-202	Planning Legislation and Professional Practice	1	0	2	2	20	-	-	80	100	100
2	PE	MPL-204A	Inclusive cities	1	0	2	2	20	-	-	80	100	100
		MPL-204B	Urban Development Policies										
3	PC	MPL-252	Thesis	0	0	32	16	-	-	-	400	400	400
			Total---->	2	0	36	20	40			560	600	600

#### **Abbreviations:**

PC : Programme Core Course  
 PE : Professional Elective Course  
 PAECC : Professional ability enhancement compulsory course  
 L : Lecture  
 T : Tutorial  
 P : Practical  
 CE : Continuous Evaluation  
 MSE : Mid Semester Examination  
 ESE : End Semester Examination  
 IP : Internal Practical  
 EXP : External Practical  
 Cr : Credit

### ***Program Outcomes (PO's)***

PO1	<b>Planning knowledge</b>	Interpret the knowledge of planning parameters, mathematical analysis, policies, governance management and latest development in various field for the solution of complex planning and development problems.
PO2	<b>Problem analysis</b>	Identify, formulate, review research literature and analysis of complex development problems reaching substantiated conclusions using various planning principles and guidelines, understanding various zoning regulations and best practises.
PO3	<b>Development of Planning solutions</b>	Planning solutions to address the urbanisation issues and challenges that meet the specified user and environmental needs with appropriate consideration for the inclusive growth, public health and safety, and the cultural, societal, environmental issues
PO4	<b>Conduct investigations of complex problems</b>	Integrate research-based knowledge and research methods including experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	<b>Modern tool usage</b>	Create, select, and apply appropriate techniques, resources, and modern analytical tools and simulation of complex urbanisation issues and challenges with an understanding of the limitations.
PO6	<b>The Planner and society</b>	Evaluate contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the profession of planning.
PO7	<b>Environment and sustainability</b>	Elaborate the impact of the professional planning solutions in societal and environmental contexts, demonstrate the knowledge and need for sustainable development.
PO8	<b>Ethics</b>	Integrate ethical principles and commitment to professional ethics, responsibilities and norms of the planning profession.
PO9	<b>Individual and team work</b>	Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.
PO10	<b>Communication</b>	Communicate effectively on complex urbanization activities with the multiple stakeholders at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions
PO11	<b>Project Management and finance</b>	Synthesize knowledge and understanding of the planning and governance principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	<b>Life-long learning</b>	Relate to the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of environmental, social, economical, and technological changes.

# M.Plan (2021 Batch)

## SYLLABUS

### SEMESTER I

Module 1		M1: FILM APPRECIATION
Contacts Hours		2 Weeks
Subject Code	Subject Name	Max Marks
MPL - 151	Planning History and Theory	20
MPL - 153	Socio- Economic basis for Planning	20
MPL - 155	Planning Techniques	25
MPL - 157	Infrastructure and Transport Planning	20
MPL - 161	Studio Course	30
MPL - 163	Studio	20

#### COURSE OUTCOMES

1. Create a documentary
2. Appraise planning profession
3. Correlate various aspects & domains involved in city planning
4. Value role of human settlement in history
5. Unlearn the traditional classroom system and get acquainted to Project Based Learning
6. Learning graphical representation of everyday experience
7. Understanding professional ethics and values

#### Project: Film Appreciation - Documentary

#### COURSE CONTENT

##### MPL - 151: Planning History and Theory

Evolution of City Building Relevance of the study of evolution of settlements; Hunter, gatherer, farmer and formation of organized society; Cosmological and other influences, origins and growth of cities, effects of cultural influence on physical form; Human settlements as an expression of civilizations; Basic elements of the city; Concepts of space, time, scale of cities.

##### MPL - 153: Socio- Economic Basis for Planning

Nature and Scope of Sociology: Sociological concepts and methods, man and environment relationships; Socio-cultural profile of Indian society and urban transformation; Tradition and modernity in the context of urban and rural settlements; Issues related to caste, age, sex, gender, health safety, and marginalized groups; Displacement, resettlement and rehabilitation due to compulsory land acquisition.

##### MPL - 155: Planning Techniques

Survey Techniques and Mapping: Data base for physical surveys including land use, building use, density, building age, etc., and socio-economic surveys; Survey techniques; Land use classification or coding and expected outputs; Techniques of preparing base maps including understanding the concepts of scales, components and detailing for various levels of plans like regional plan, city plan, zoning plan, and local area plan

##### MPL - 157: Infrastructure and Transport Planning

Role of Infrastructure in Development Elements of Infrastructure (physical, social, utilities and services): Basic definitions, concepts, significance and importance; Data required for provision and planning of urban networks and services; Resource analysis, provision of infrastructure, and land requirements; Principles of resource distribution in space; Types, hierarchical distribution of facilities, Access to facilities, provision and location criteria, Norms and standards, etc.

### **MPL - 161: Studio Course**

GIS Applications: Coordinate system and geo-coding, vector data structure and algorithms, raster data structure and algorithms, data bases for GIS – concepts, error modeling and data uncertainty, decision making through GIS, constructing spatial data infrastructure and spatial information system; National Urban Information system.

Remote Sensing: Why remote sensing, aerial and satellite remote sensing, principles of aerial remote sensing, Aerial photo-interpretation, photogrammetry, stereovision, measurement of heights / depths by relief displacement and parallax displacement. Principles of satellite remote sensing, spatial, spectral and temporal resolutions. Applications in planning, population estimation, identification of squatter / unauthorized areas, sources of pollution, etc., spatial resolution related to level of Planning

NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved evaluation rubric by concerned faculty.

### **SUGGESTED BOOKS and READINGS**

- Urban and Regional Planning, Peter Hall, 2005
- Contemporary Urban Planning , John M. Levy, 2017
- Remote Sensing and GIS Accuracy Assessment, edited by Ross S. Lunetta and John G. Lyon
- Land use and land cover change detection with remote sensing and GIS at metropolitan Lagos ...
- Integrated Urban Infrastructure and Services Planning Manual
- Planning Infrastructure & Services, World Bank Report 2012
- The Image of the City by Kevin Lynch

<b>Module 2</b>		<b>M2: RESEARCH PAPER</b>
<b>Contacts Hours</b>		<b>6 Weeks</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
MPL - 151	Planning History and Theory	20
MPL - 153	Socio- Economic basis for Planning	20
MPL - 155	Planning Techniques	10
MPL - 157	Infrastructure and Transport Planning	20
MPL - 161	Studio Course	30
MPL - 163	Studio	20

## COURSE OUTCOMES

1. To widen and enrich the literature pertaining to a topic of research
2. to study and understand the problems of the urban and rural society in relation with environment
3. development skills to manage field work, data analysis and technical writing

## Project: Research Paper

## COURSE CONTENT

### MPL – 151: Planning History and Theory

Town planning in ancient India; Medieval, renaissance, industrial and post-industrial cities; City as a living spatial entity; Concepts of landmark, axis, orientation; City form as a living space; City as a political statement: New Delhi, Chandigarh, Washington D.C. Brasilia etc; Contribution of individuals to city planning: Lewis Mumford, Patrick Geddes, Peter Hall, etc; Dynamics of the growing city, impact of industrialization and urbanization, metropolis and megalopolis.

### MPL – 153: Socio- Economic Basis for Planning

Community and Settlements : Social problems of slums and squatters communities, urban and rural social transformation and their impact on social life, safety, security; Crimes in urban areas and their spatial planning implications, social structure and spatial planning; Role of socio-cultural aspects on growth patterns of city and neighbourhood communities; Social planning and policy, and community participation; Marginalization and concepts of inclusive planning, and gender concerns in planning. Settlement Policy: National Commission on Urbanization, Rural Habitat Policy and experiences from developing countries regarding settlement structure, growth and spatial distribution.

### MPL – 155: Planning Techniques

Survey Techniques and Mapping: Techniques of preparing base maps including understanding the concepts of scales, components and detailing for various levels of plans like regional plan, city plan, zoning plan, and local area plan

### MPL – 157: Infrastructure and Transport Planning

Planning and Management of Water, Sanitation and Storm Water:

Water – sources of water, treatment and storage, transportation and distribution, quality, networks, distribution losses, water harvesting, recycling and reuse, norms and standards of provision, institutional arrangements, planning provisions and management issues;

Sanitation – points of generation, collection, treatment, disposal, norms and standards, grey water disposal, DEWATS, institutional arrangements, planning provisions and management issues.

Storm water – rainfall data interpretation, points of water stagnation, system of natural drains, surface topography and soil characteristics, ground water replenishment, storm water collection and disposal, norms and standards, institutional arrangements, planning provisions and management issues;

### MPL – 161: Studio Course

Demography Sources of demographic data in India, Settlement type, growth pattern and structure: urban settlement analysis, Concentration: spatial, vertical and size, peri-urban sprawl, economic base; Rural Settlements – Size, occurrence and character, transformation, Policies towards various size class settlements. Population structure and composition – Age, sex, gender, marital status, caste, religion, literacy level, etc.; Age - sex ratio, structure, pyramid; dependency ratio; occupational structure; Fertility; mortality, migration analysis, natural growth of population, migration and its implications in spatial planning



NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved evaluation rubric by concerned faculty.

### **SUGGESTED BOOKS and READINGS**

- Cities of Tomorrow: An Intellectual History of Urban Planning and Design Since 1880, Peter Hall, 2014
- Geo Information: Remote Sensing, Photogrammetry and Geographic Information Systems, Gottfried Konecny, 2014
- Survey Manual for comprehensive Urban Planning, by Jerome R. Saroff and Alberta Z. Levitan
- Solid waste management in world cities
- Reimagining India: Unlocking the Potential of Asia's Next Superpower, McKinsey & Company
- Urban Transport: Planning and Management by Pratibha Deshmukh



<b>Module 3</b>		<b>M3: REDESIGN OF A NEIGHBORHOOD - I</b>
<b>Contacts Hours</b>		<b>2 Weeks</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
MPL - 151	Planning History and Theory	20
MPL - 153	Socio- Economic basis for Planning	20
MPL - 155	Planning Techniques	30
MPL - 157	Infrastructure and Transport Planning	20
MPL - 159	Housing and Environmental Planning	30
MPL - 161	Studio Course	10
MPL - 163	Studio	20

## COURSE OUTCOMES

1. Understanding the landuse characteristics with respect to scale, location, accessibility and precincts.
2. Learning the graphical representation of various uses
3. Learn the method of conducting surveys
4. Data Analysis
5. Develop an understanding on how to relate the current landuse situation with the planning guidelines and master plan

## Project: Redesign of a NH (Site Appreciation)

### COURSE CONTENT

#### MPL – 151: Planning History and Theory

Definitions of town and country planning; Orthodoxies of planning; Goal formulation, objective, scope, limitations; Sustainability and rationality in planning; Components of sustainable urban and regional development.

#### MPL- 153: Socio- Economic Basis for Planning

Elements of Micro and Macro Economics: Concepts of demand, supply, elasticity and consumer markets; concept of revenue costs; Economies of scale, economic and social costs, production and factor market; Different market structures and price determination; market failures, cost-benefit analysis, public sector pricing; Determinants of national income, consumption, investment, inflation, unemployment, capital budgeting, risk and uncertainty, and long-term investment planning.

#### MPL - 155: Planning Techniques

Analytical Methods : Classification of regions, delineation techniques of various types of regions, analysis of structure of nodes, hierarchy, nesting and rank size; Scalogram, sociogram, etc.; Planning balance sheet; Threshold analysis; Input output analysis, SWOT analysis;

#### MPL- 157: Infrastructure and Transport Planning

Planning and Management of Municipal Wastes, Power and Fire Municipal and other wastes – generation, typology, quantity, collection, storage, transportation, treatment, disposal, recycling and reuse, wealth from waste, norms and standards, institutional arrangements, planning provisions and management issues. Power – Sources of power procurement, distribution networks, demand assessment, norms and standards, planning provisions and management issues. Fire – History of fire hazards, vulnerable locations, methods of firefighting, norms and standards, planning provisions and management issues.

#### MPL – 159 Housing and Environmental Planning

Housing and the City: Understanding housing as an important land use component of city plan / master plan, considerations for carrying out city level housing studies, projections, land use provisions; Suitability of land for housing, housing stress identification, projecting housing requirements, calculating housing shortages, housing allocation.

### **MPL – 161: Studio Course**

Demography: Rural Settlements – Size, occurrence and character, transformation, Policies towards various size class settlements. Population structure and composition – Age, sex, gender, marital status, caste, religion, literacy level, etc.; Age - sex ratio, structure, pyramid; dependency ratio; occupational structure; Fertility; mortality, migration analysis, natural growth of population, migration and its implications in spatial planning.

NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved evaluation rubric by concerned faculty.

### **SUGGESTED BOOKS and READINGS**

- Neighbourhood Planning: including Neighbourhood Development Plans, Neighbourhood Development Orders and Community Right to Build Orders
- The Power of Neighbourhood Planning by Peter Edwards
- Town Planning : The Basics by Tony Hall



Module 4		M4: REDESIGN OF A NEIGHBORHOOD - II
Contacts Hours		2 Weeks
Subject Code	Subject Name	Max Marks
MPL - 151	Planning History and Theory	20
MPL - 153	Socio- Economic basis for Planning	20
MPL - 155	Planning Techniques	10
MPL - 157	Infrastructure and Transport Planning	20
MPL - 159	Housing and Environmental Planning	35
MPL - 163	Studio	20

## COURSE OUTCOMES

1. Learn the applicability of the various norms and guidelines given in the master plan.
2. Develop a sustainable neighborhood
3. Analysis of data and applicability of results

## Project: Site Planning

## COURSE CONTENT

### MPL – 151: Planning History and Theory

Theories of city development including Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory and other latest theories; Land use and land value theory of William Alonso; Ebenezer Howard's Garden City Concept; and Green Belt Concept; City as an organism: a physical, social, economic and political entity; Emerging Concepts: global city, inclusive city, safe city, etc.

### MPL – 153: Socio- Economic Basis for Planning

Economics and Lessons from Indian Experiences: Economic growth and development, quality of life; Human development index, poverty and income distribution, employment and livelihood

### MPL - 155: Planning Techniques

Demographic Methods: Methods of population forecasts and projections; Lorenz Curve, Ginni Ratio, Theil's index, ratios: urban – rural, urban concentration, metropolitan concentration; Location dimensions of population groups – social area and strategic choice approach – inter connected decision area analysis.

### MPL – 157: Infrastructure and Transport Planning

City Development and Transport Infrastructure Planning, Management and Design: Role of transport, types of transport systems, evolution of transport modes, transport problems and mobility issues; Urban form and Transport patterns, land use – transport cycle, concept of accessibility; Hierarchy, capacity and geometric design elements of roads and intersections.

### MPL - 159 Housing and Environmental Planning

Concepts and Definitions: Shelter as a basic requirement, determinants of housing form, Census of India definitions, Introduction to policies, housing need, demand and supply, dilapidation, structural conditions, materials of constructions, housing age, occupancy rate, crowding, housing shortage, income and affordability, poverty and slums, houseless population Various housing typologies viz. traditional houses, plotted development, group housing, multistoried housing, villas, chawls, etc., slums and squatters, night shelters, public health issues related to housing, various theories of housing, concept of green housing, green rating of housing projects.

Planning for Neighbourhoods : Approaches to neighbourhood living in traditional and contemporary societies, elements of neighbourhood structure, Planning and design criteria for modern neighbourhoods, norms and criteria for area distribution, housing and area planning standards, net residential density and gross residential density, development controls and building byelaws, UDPFI guidelines, NBC 2005 provisions and Case studies of neighbourhood planning.

NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved evaluation rubric by concerned faculty.

### **SUGGESTED BOOKS and READINGS**

- Neighbourhood Planning: Place, Space and Politics by Janet Banfield
- Neighbourhood Planning: Communities, Networks and Governance by Nick Gallent and Steve Robinson
- Spatial Planning and Sustainable Development: Approaches for Achieving Sustainable Urban Form in Asian cities, Zhen-jiang Shen & Mitsuhiro Kawakami (auth.) & Mitsuhiro Kawakami & Jen-te Pai & Xiao-lu Gao & Ming Zhang (eds.), 2013



Module 5		M5: OUTLINE DEVELOPMENT PLAN
Contacts Hours		4 Weeks
Subject Code	Subject Name	Max Marks
MPL - 151	Planning History and Theory	20
MPL - 153	Socio- Economic basis for Planning	20
MPL - 155	Planning Techniques	25
MPL - 157	Infrastructure and Transport Planning	20
MPL - 159	Housing and Environmental Planning	35
MPL - 161	Studio Course	30
MPL - 163	Studio	20

### COURSE OUTCOMES

1. Understanding the dynamism of the city
2. Learn the method of conducting surveys
3. Understanding the developmental issues of the city
4. Understanding the technique of projections
5. Development of policies and guidelines

### Project: Outline Development Plan (ODP) -

### COURSE CONTENT

#### MPL – 151: Planning History and Theory

City of the future and future of the city; Shadow cities, divided cities; Models of planning: Advocacy and Pluralism in Planning; Systems approach to planning: rationalistic and incremental approaches, mixed scanning and middle range planning; Equity planning; Political Economy Model; Types of development plans, plan making process.

#### MPL – 153: Socio- Economic Basis for Planning

Economics and Lessons from Indian Experiences: Economic principles in land use planning; Policies and strategies in economic planning, balanced versus unbalanced growth, public sector dominance; changing economic policies, implications on land.

#### MPL - 155: Planning Techniques

Planning Standards: Spatial standards, performance standards and benchmarks, and variable standards; UDPFI guidelines, zoning regulations and development control rules and regulations.

#### MPL – 157: Infrastructure and Transport Planning

City Development and Transport Infrastructure Planning, Management and Design: Basic principles of Transport infrastructure design; Traffic and transportation surveys and studies, traffic and travel characteristics; Urban transport planning process – stages, study area, zoning, data base, concept of trip generation Transport, environment and safety issues; principles and approaches of traffic management, transport system management.

#### MPL – 159 Housing and Environmental Planning

Social and Economic Dimensions : Housing as social security, role of housing in development of family and community well-being, status and prestige related to housing, safety, crime and insecurity, deprivation and social vulnerability, ghettoism, gender issues, housing for the elderly. Contribution of housing to micro and macro economy, contribution to national wealth and GDP, housing taxation, national budgets, fiscal concessions, forward and backward linkages.

#### MPL – 161: Studio Course

Statistical Applications: General concepts - statistical interference, population and samples variables, Sampling, simple statistical models, Measures of central Tendency, Measures of Dispersion, Measures of shape of distribution, Correlation and regression

### SUGGESTED BOOKS and READINGS

- Urban Infrastructure, Finance and Management, Kath Wellman and Marcus Spiller
- Water Supply and Sewerage, McGraw- Hill series in water resources and environmental engineering by E. W Steel
- Urban Drainage by Butler & David & Davies & John W. & James Digman & Christopher &
- Bicycle Urbanism: Reimagining Bicycle Friendly Cities
- Master Plan Delhi 1962, 2001 and 2021
- URDPFI Guidelines
- Modern Municipal Rules 2003
- National Transport Policy, 2007, 2019

## Semester II

Module 6		M6: Literature Review
Subject Code	Subject Name	Max Marks
MPL-102	City and Metropolitan Planning	20
MPL-104	Infrastructure Planning	15
MPL-106	Sustainable Planning and Development	40
MPL-108	Advanced Planning Techniques	15
MPL-152	Urban Planning Studio	15
MPL-154	Geo-Informatics – II & Management and Governance Plan	15
Departmental Electives (Any one to be opted)		
MPL-110A	Urban Information System & Spatial Analysis	15
MPL-110B	Land Use and Transport Planning	15

**Project: Outline Development Plan of a city with population around 1lakh to 1.5 lakh**

### COURSE OUTCOMES

1. Case study identification methods
2. Indicators to study case studies
3. Critical appraisal of case study plan documents
4. To formulate inferences from studied case studies

### COURSE CONTENT

#### **MPL - 102: City and Metropolitan Planning**

##### Urban Structure and Growth Implications

Growth of cities; cities as engine of growth; urban sprawl; land value, economic attributes of activity location, economic forces in urban development; Structure of City Regions, area of influence, Impact of technology on urban forms; Transportation and urban form; location characteristics and impact of urban settlements.

#### **MPL – 104: Infrastructure Planning**

##### Water Supply System

Water supply systems and networks, network mapping; water sources, quality and quantity requirements, collection and conveyance techniques; water requirement for various land uses; Factors affecting water demand; Storage facilities; Distribution Systems; rain water harvesting system- Locational Criteria, Implications on Land Use and Density of Water Harvesting System; Innovative Methods and successful urban water supply system practices; policies, land requirements and phasing of water supply systems.

#### **MPL -106: Sustainable Planning and Development**

##### Introduction to Sustainable Development

Sustainable Development- Definitions, Concepts and Parameters; Eco-City Approach; Kyoto Protocol, Intergovernmental Panel on Climate Change (IPCC), United Nations Framework Convention on Climate Change; Indian Network of Climate Change Assessment, Global Environment Facility, and Clean Development Mechanism; UNHABITAT policies, Sustainable Development Goals, New Urban Agenda, Sustainable Cities Programme (UNEP and UN-Habitat), Localizing Agenda 21 (UN-Habitat).

#### **MPL – 108 Advanced Planning Techniques**

##### Survey Techniques

Data Base for Physical surveys (including land use / building use / density / building age, etc.) and Socio-economic surveys; Questionnaire formulation, Sampling and survey techniques, etc. Land use classification / coding.

#### **MPL – 110A: Urban Information System and Spatial Analysis**

##### Importance of Urban Information Systems

Information Scales and Levels; Pre-Conditions for Using Planning Information Systems; Representing, Modelling and Impact Analysis of the Data; Query Measurement and Transformations; Summary Statistics and Inference.

## **MPL – 110B: Land Use and Transport Planning**

### Importance of Land use-Transport Integration

Land use and mobility patterns in cities, implications of land use patterns on transport and mobility, land use and transport decisions , need for sustainable development and sustainable transport; need and benefits of land use transport integration , case cities of land use –transport integration

### **SUGGESTED BOOKS and READINGS**

- The Application of Remote Sensing and GIS
- The City in History: Its Origins, Its Transformations, and Its Prospects by Lewis Mumford (1972)
- Good City Form by Kevin Lynch (1995)





Module 7		M7: Field Visit
Subject Code	Subject Name	Max Marks
MPL-102	City and Metropolitan Planning	15
MPL-104	Infrastructure Planning	25
MPL-106	Sustainable Planning and Development	20
MPL-108	Advanced Planning Techniques	20
MPL-152	Urban Planning Studio	20
MPL-154	Geo-Informatics – II & Management and Governance Plan	10
<b>Departmental Electives (Any one to be opted)</b>		
MPL-110A	Urban Information System & Spatial Analysis	15
MPL-110B	Land Use and Transport Planning	15

**Project: Outline Development Plan of a city with population around 1lakh to 1.5 lakh**

### COURSE OUTCOMES

1. Familiarize with a city and its various urban aspects
2. Understand the important and methods of interaction with stakeholders in the preparation of a master plan
3. Get experience of conducting surveys through various tools and techniques
4. Learn methods of data management and collation

### COURSE CONTENT

#### MPL - 102: City and Metropolitan Planning

##### Theories of Development and Emerging Concepts

Theories of urban structure and land use- Centre place theory, urban realm model, core frametheory; New urbanism; Territorial Development Theory - Growth pole theory, urban bias critique, secondary cities and urban diffusion; Emerging Rural Urban Relationship models – urban rural linkage, expanding city, globalisation and extended metropolitan region, Desakota model, Networked model; Territoriality of rural-urban interaction; Peri- urban Interface (PUI) case studies.

#### MPL - 104: Infrastructure Planning

##### Storm water, Sanitation and Sewer system

Strom water drainage networks, network mapping; general considerations and principles, physical layout, design principles, Data requirement, estimations of sewer generation and network requirements; Sanitation and Sewer System: General considerations and principle, Sewage Disposal and treatment Methods; Characteristics of Waste Water, Industrial Pollutants and their Effects, Innovative Approaches of Sewage disposal in urban area and low cost appropriate technologies for Sanitation.

#### MPL -106: Sustainable Planning and Development

##### Principle of Sustainable Planning

Concept of sustainable planning, Three pillars of sustainability and its implication in planning process; Environmental preservation; commerce and liveability; Walkability and Connectivity; Integration of diverse community features; Strong sense of place.

#### MPL -108 Advanced Planning Techniques

##### GIS Mapping

Coordinate system, Georeferencing and geo-coding; GIS data processing (Digitization, topology building and metadata creation), Data structures and modeling, GIS analysis (Buffer, proximity and overlay), Decision making through GIS, Information systems (Land Information system, Urban Information system for various activity sectors).

#### MPL – 110A: Urban Information System and Spatial Analysis

##### Urban Information Systems for Plan Preparation and Policy Planning

Information needs for plan preparation and policy planning; Tools for spatial data handling- type, systems, nature, hierarchy and value; raster and vector data structures; Analysis tools and software; Spatial data models, Geo-database; geospatial information regulation Bill 2016

## **MPL – 110B: Land Use and Transport Planning**

### Principles of Land use – Transport Integration

Land use transport integration- definition and concept, land use transport cycle, importance of accessibility, factors affecting land use transport integration, tools for Land use –Transport Integration, key elements of integration, Integrating land use and transport in the planning process, Institutional integration and legal mechanism



Module 8		M8: Data Analysis
Subject Code	Subject Name	Max Marks
MPL-102	City and Metropolitan Planning	15
MPL-104	Infrastructure Planning	25
MPL-106	Sustainable Planning and Development	20
MPL-108	Advanced Planning Techniques	20
MPL-152	Urban Planning Studio	15
MPL-154	Geo-Informatics – II & Management and Governance Plan	25
<b>Departmental Electives (Any one to be opted)</b>		
MPL-110A	Urban Information System & Spatial Analysis	20
MPL-110B	Land Use and Transport Planning	20

## COURSE OUTCOMES

1. Analyze for each urban sector in the city, the present situation
2. Develop and understand the various trends and patterns associated with the present functioning of the city
3. Understand the various methods of data analysis
4. Learn methods of visualization of data

**Project: Outline Development Plan of a city with population around 1lakh to 1.5 lakh**

### **MPL - 102: City and Metropolitan Planning** **Planning Norms and Standards**

Spatial standards for residential , industrial, commercial , institutional, transport, ecological spaces , recreational areas etc.; space standards for facility areas, utilities and networks; performance standards

### **MPL -104: Infrastructure Planning** **Solid Waste Disposal and Management**

Elements of Solid Waste Management, Classification and Characteristics of Solid Wastes; Methods for Solid waste Collection, Storage, transportation and disposal; Processing and Treatment of Solid Wastes; Land Filling methods of Solid Waste Management; Best practices for solid waste management.

### **MPL -106: Sustainable Planning and Development** **Ecological Principles in Planning**

Natural drainage and water bodies; Application of Ecological Principles in Sustainability; Carrying Capacity Based Planning- Concept, Parameters and Indicator Measures; Models and Case Studies in Urban and Regional Development.

### **MPL -108 Advanced Planning Techniques** **Research Design and implementation**

Approaches in research, developing a method for research; Questionnaire Design, Types of data, sampling methods; developing aims, objectives, scope, limitations; and literature research – using library, accessing the Internet

### **MPL – 110A: Urban Information System and Spatial Analysis** Urban Information Sources

Planning Information Systems- National Natural Resources Management System (NNRMS), National Urban Information System, National Urban Observatory, Municipal Information Systems, Land Information Systems; Global Navigation Satellite Systems; NUIS Guidelines & Design Standards;

### **MPL – 110B: Land Use and Transport Planning** Land Use-Transport Model

Components of Land use transport model, accessibility – concept, measures and quantification, types of land use transport model- Density saturation gradient method, Hansen’s accessibility model, intervening opportunity model, Garin Lowry model; strategic land use transport model.

Module 9		M9: Issues and Potentials
Contacts Hours		2 Weeks
Subject Code	Subject Name	Max Marks
MPL-102	City and Metropolitan Planning	25
MPL-104	Infrastructure Planning	15
MPL-106	Sustainable Planning and Development	10
MPL-108	Advanced Planning Techniques	25
MPL-152	Urban Planning Studio	25
MPL-154	Geo-Informatics – II & Management and Governance Plan	25
Departmental Electives (Any one to be opted)		
MPL-110A	Urban Information System & Spatial Analysis	30
MPL-110B	Land Use and Transport Planning	30

## COURSE OUTCOMES

1. Identify the critical areas in the city that are associated with problems/degradation
2. Appreciate various potentials in the city for future development
3. Locate the spatially the identified issues and assess the various opportunities in the city

**Project: Outline Development Plan of a city with population around 1lakh to 1.5 lakh**

### MPL - 102: City and Metropolitan Planning

#### Plan Preparation Approaches and Techniques

Approaches for preparation of Urban development plans, Master Plans, Structure plans and Strategy Plan; Public Participation and Plan Implementation; Techniques of urban renewal and redevelopment; System approach to planning; Threshold analysis, retail location and industrial location analysis; transport system analysis

### MPL - 104: Infrastructure Planning

#### Energy, Telecommunication and Fire Fighting Services

Power Supply – Sources of Electricity; Transmission, Distribution and Supply network; Sustainable Energy Planning; Telecommunications - Infrastructure and Network Systems; Digital Infrastructure Fire Fighting Services - Planning for Fire Protection Services and Space Standards;

### MPL -106: Sustainable Planning and Development

#### Climate Change and its Impact

Basic concepts and definitions of Climate Change; Urban Heat Islands; Climatic Change and Human History; Impacts of Climate Change; Climate as Forcing Variable, Locational Attributes, Sensitivity and Vulnerability of Different Sectors; Extreme events and their effects

### MPL -108 Advanced Planning Techniques

#### Analytical Techniques, Presentation and Report Writing

Data tabulation; Interpretation of information; Graphical presentation of data; Spatial representation of data; Types of reports with specific focus on technical report writing; Organizing the report, structure chapter organization, Writing the report (analytical findings); Referencing in text, use of software in referencing.

## ELECTIVE COURSES

### MPL – 110A: Urban Information System and Spatial Analysis

#### Geographic Information System (GIS) and Remote Sensing Techniques

Geographic Information Systems- concept , components, benefits; Spatial data entry into GIS, Data structure for GIS; Mapping and spatial analysis software, Linking of attribute data, Spatial data aggregation, Spatial data generalization; Raster data capture; Cloud based GIS on Bhuvan platform ; GIS based Master Plans; Resource Satellite, Sensing Capabilities; Aerial Photography; Digital Survey; Raster Data Processing and Analysis; Resolutions; Geo-Rectification; Geometric Distortions, Image Enhancement, Transformation, Segmentation; Image interpretation and analysis, 3D Terrain Modelling

## **MPL – 110B: Land Use and Transport Planning**

### Traffic Impact of Land Development

Principles of traffic impact analysis, land development attributes, traffic generation rates of different land uses, Land development impact on traffic congestion on road segments, intersections and parking, impact on public transportation , pedestrian traffic and safety



<b>Module 10</b>		<b>M10: Forecast and Proposals</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
MPL-102	City and Metropolitan Planning	25
MPL-104	Infrastructure Planning	15
MPL-106	Sustainable Planning and Development	10
MPL-108	Advanced Planning Techniques	25
MPL-152	Urban Planning Studio	25
MPL-154	Geo-Informatics – II & Management and Governance Plan	25
<b>Departmental Electives (Any one to be opted)</b>		
MPL-110A	Urban Information System & Spatial Analysis	30
MPL-110B	Land Use and Transport Planning	30

## **COURSE OUTCOMES**

1. Forecast future population of a town
2. Estimate the requirement of land and infrastructure
3. Allocate the various land uses for the projection year
4. Formulation of various sector specific proposals

**Project: Outline Development Plan of a city with population around 1lakh to 1.5 lakh**

### **MPL - 102: City and Metropolitan Planning**

#### **Planning Approaches for Special Areas**

Special area planning- definition, types, attributes, requirements, planning process; inner areas , peri-urban areas issues and planning approaches; Smart City – Concepts, Elements, Features, planning approach and strategies, policy efforts in India; Inclusive planning- Concept and components, essential dimensions of inclusive planning; growth of informal sector, characteristics, linkages with formal sector, Planning interventions, Inclusive zoning, development and building regulations, slum improvement;

### **MPL -104: Infrastructure Planning**

#### **Transport System**

Types and characteristics of transport systems; determinants of transport demand; planning norms and standards ; Principles of transport infrastructure planning and design- roads and intersections, street infrastructure elements; pedestrian and cyclist infrastructure; parking facilities; principles of traffic management

### **MPL -106: Sustainable Planning and Development**

#### **Urban Environmental Management**

Urban Environmental Management and Planning; Human activities and energy in Cities; Contribution to GHGs; Environmental Impact and Strategic Environmental Assessment for Urban Areas; Ecological Footprint Analysis of Cities; Sustainable Lifestyle Assessment.

### **MPL -108 Advanced Planning Techniques**

#### **Case Studies**

## **ELECTIVE COURSES**

### **MPL – 110A: Urban Information System and Spatial Analysis**

#### Urban Information Management

Data base management system; big data analytics and applications, Internet of Things (IOT) and its application in urban sector; management of tabular data, spread sheets, introduction to statistical packages with advantages and limitations; municipal information system- definition, need scope, limitations;

#### Spatial Analysis Techniques

Spatial data and analysis unit, Spatial data analysis techniques – spatial interaction measure, population and job density decay curve, urban concentration and land use diversity measures, measures of urban structure analysis, facility location analysis, Gini's coefficient, Accessibility measures

## **MPL – 110B: Land Use and Transport Planning**

### Transit Oriented Development (TOD)

Transit Oriented Development- Definition, concepts and key components ; principles of TOD, planning norms and standards of TOD , pre-requisites of TOD , financing TOD , role of stakeholders, case studies of TOD

### Case Studies on Land use - Transport Integration

Best practices of Land use transport integration in India and abroad, inter-disciplinary policy issues and public action for guiding land use transport integration.



## Semester III

Module 11		M 11
Contacts Hours		3 weeks
Subject Code	Subject Name	Max Marks
MPL-201	Urban Development Management and Governance	10
MPL-203	Politics and Planning	25
MPL-205	Development Finance	25
MPL-251	Urban Planning Studio - II	25
MPL-253	Geo-Informatics – III	30
Departmental Electives (Any one to be opted)		
MPL-207A	Energy, Climate Change and Urban Development	20
MPL-207B	Community Planning and Participation	25

### COURSE OUTCOMES

1. Assess the study area in context to the socio-economic, spatial, environmental and cultural characteristics of that city, zone, location
2. Appreciate the locational attributes of land parcels for future development in a city
3. Apply the understanding to generate an area profile

**Project:** Area Appreciation – Area Profile: Site analysis of a sector/ ward in a metropolitan city

### MPL - 201: Urban Development Management and Governance

#### Introduction to Development Management

Definition, objectives and scope of management; Role of management in developing economy; Decision making process and corporate activity in urban development; interface with national goals and political economic system. Strategies, Tools and Techniques and their application; organizations involved.

### MPL – 203: POLITICS AND PLANNING

#### Interface between Politics and Planning

Social and economic context; State in India – political culture of the Indian State – Centre – State – Local political economy: 74th Constitution Amendment Act, State Finance Commissions; Emergence of the State in the federal set up.

### MPL – 205: DEVELOPMENT FINANCE

#### Overview of Development Finance

Approaches, concepts, components, process, credit rating.

### ELECTIVES

### MPL – 207B: COMMUNITY PLANNING AND PARTICIPATION

#### Overview of Communities

Overview of communities – definition, type, attributes, activity patterns, locational patterns; sociocultural aspects; community needs and spatial requirements ; socio-economic implication,

#### Principles of Community Planning

Community planning- Principles, approaches and key considerations; spatial-socio-economic linkages; inclusion and quality of life; neighbourhood planning ; local area planning

### MPL – 207A: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

#### Introduction

Energy, Climate change and Urban Development – Interface.



<b>Module 12</b>		<b>M 12</b>
<b>Contacts Hours</b>		<b>3 weeks</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
<b>MPL-201</b>	Urban Development Management and Governance	10
<b>MPL-203</b>	Politics and Planning	25
<b>MPL-205</b>	Development Finance	25
<b>MPL-251</b>	Urban Planning Studio - II	25
<b>MPL-253</b>	Geo-Informatics – III	30
<b>Departmental Electives (Any one to be opted)</b>		
<b>MPL-207A</b>	Energy, Climate Change and Urban Development	20
<b>MPL-207B</b>	Community Planning and Participation	25

## COURSE OUTCOMES

1. Urban Planner will be able to:
2. Data analysis techniques
3. GIS Based study of city planning aspects including spatial operations
4. Trends and pattern analysis
5. Cross validation with existing planned documents

**Project:** Area Appreciation – Area Analysis: Site analysis of a sector/ ward in a metropolitan city

### **MPL - 201: Urban Development Management and Governance**

#### **Land and Real Estate Development**

Economic concepts of land, Land Pricing / valuation; Economic principles of land use; demand forecasting for land use: factors affecting land supply and demand; Land development methods, Supply Management, Demand side Management; Real estate markets, type of property development and its impact on supply and demand, method of development, environmental considerations.

### **MPL – 203: POLITICS AND PLANNING**

#### **City and the State - I**

State as a manager of resources – property rights, norms and standards – Government market and market by Government – Regulatory State, Reforming State, and Rent Seeking State – their spatial implications;

### **MPL – 205: DEVELOPMENT FINANCE**

#### **State Finance**

Finance Commissions, functions, relationship between Central, State and Urban Local Government.

## **ELECTIVES**

### **MPL – 207A: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT**

#### **Energy Generation and Consumption.**

Energy Supply and Demand, Energy Consumption in cities, determinants of energy demand, phenomenon of climate change, factors influencing climate change, impacts of climate change

### **MPL – 207B: COMMUNITY PLANNING AND PARTICIPATION**

#### **Local Planning Tools and Techniques**

Participatory Learning (PLA) tools: Mapping local context and problem identification, Focus Group Discussions, ; Audit of communities and its facilities; rapid assessment of community needs and planning Intervention

<b>Module 13</b>		<b>M 13</b>
<b>Contacts Hours</b>		<b>3 Weeks</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
<b>MPL-201</b>	Urban Development Management and Governance	10
<b>MPL-203</b>	Politics and Planning	25
<b>MPL-205</b>	Development Finance	25
<b>MPL-251</b>	Urban Planning Studio - II	25
<b>MPL-253</b>	Geo-Informatics – III	30
<b>Departmental Electives (Any one to be opted)</b>		
<b>MPL-207A</b>	Energy, Climate Change and Urban Development	20
<b>MPL-207B</b>	Community Planning and Participation	25

## COURSE OUTCOMES

1. Identify issues and potentials in a neighborhood
2. Understand the driving forces of such issues and potentials
3. Assess the needs and aspirations of the demographics
4. Formulate strategies policy as well as spatial

**Project: Strategies and Project Formulation: Study area to be a ward/ sector of a metro city**

### **MPL - 201: Urban Development Management and Governance** **Urban Redevelopment**

Strategies and evaluation of redevelopment; role of public sector agencies in redevelopment; Area based redevelopment Initiatives; Property led redevelopment policies; Investment and Funding of Urban Redevelopment Schemes; Role of private sector; Development Potential and Pricing; Plot reconstitution; Renewal through Housing and Mixed Use Development; Community Participation

### **MPL – 203: POLITICS AND PLANNING** **City and the State - II**

Development planning and the Indian state – Centralization, powerlessness and decentralization; spatial politics and competition; Politics of the State and bureaucracy; New State spaces, invited and contested spaces – changing role of the state

### **MPL - 205: DEVELOPMENT FINANCE** **Municipal Finance**

Urban reform incentive fund, Sources of revenues; Equities; Loans; Debt financing; City challenge fund, Pooled finance development fund, National urban infrastructure fund, Municipal Bonds, Miscellaneous sources; Structure of finances, fiscal problems and issues of financial management, implications of 74th Constitution Amendment Act for municipal finance, expenditure pattern, Bilateral and multilateral lending intuitions mobilizing resources for a project - financial resources, land resources, project resources, and other resources.

### **MPL – 207A: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT** **Energy Planning and Management, and Mitigation and Adaptation to Climate Change.**

Energy efficient development, Compact city form, Transit oriented development.

### **MPL – 207B: COMMUNITY PLANNING AND PARTICIPATION** **Role of Community Participation**

Participatory process in housing and community development; Community participation- community involvement, community action; role of CBOs, NGOs, SHGs, etc.

Module 14		M 14
Contacts Hours		4 Weeks
Subject Code	Subject Name	Max Marks
MPL-201	Urban Development Management and Governance	10
MPL-203	Politics and Planning	25
MPL-205	Development Finance	25
MPL-251	Urban Planning Studio - II	30
MPL-253	Geo-Informatics – III	25
Departmental Electives (Any one to be opted)		
MPL-207A	Energy, Climate Change and Urban Development	20
MPL-207B	Community Planning and Participation	25

## COURSE OUTCOMES

1. Detailing out a project
2. Project components and structure
3. Need and importance
4. Project management aspects including techniques of costing and phasing
5. Layout planning with guidelines and byelaw

**Project: Site layout, Components and Itemization - Study area to be a ward/ sector of a metro city**

### MPL - 201: Urban Development Management and Governance

#### Urban Governance, Institutions and Organizations

Urban Governance- Definition, concepts and components; hierarchy and structure, form of governance; Institutional and organizational framework, existing institutional and organizational setting for urban management in India; distribution of responsibilities ; special purpose vehicles (SPV's) in the urban sector ; significance of organizational framework; Difference between institutions and organizations;

### MPL – 203: POLITICS AND PLANNING

#### Politics related to Planning and Development

Politics related to land, shelter, urban infrastructure, resources; Regeneration and redevelopment politics; politics of provision, financing and pricing; decision-making and decision taking.

### MPL – 205: DEVELOPMENT FINANCE

#### Investment Planning and Financing Mechanism

Link with spatial plans, process, components, investment needs, budgeting, financial investments in infrastructure and services. Financing of urban development, infrastructure and services – mechanisms and instruments, subsidy reduction, cost recovery, public private partnerships; Financial appraisal, investment appraisal; Financial Risk – Sources, Measures and perspectives on risk, Sensitivity analysis.

### MPL – 207A: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

#### Energy Planning and Management, and Mitigation and Adaptation to Climate Change.

Mechanisms and measures for mitigating and adapting to climate change at various levels

### MPL – 207B: COMMUNITY PLANNING AND PARTICIPATION

#### Process of People's Participation

Participatory approaches, Typology of participation, Key principles of applying participatory methods and tools, Participatory attitudes and behaviour, Teamwork skills in the context of participation, PLA/PID Tools, Participation as a process, Participatory Monitoring and Evaluation, Beneficiary Assessment, social assessment, stakeholder analysis,

<b>Module 15</b>		<b>M 15</b>
<b>Contacts Hours</b>		<b>4 Weeks</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
<b>MPL-201</b>	Urban Development Management and Governance	10
<b>MPL-203</b>	Politics and Planning	25
<b>MPL-205</b>	Development Finance	25
<b>MPL-251</b>	Urban Planning Studio - II	25
<b>MPL-253</b>	Geo-Informatics – III	30
<b>Departmental Electives (Any one to be opted)</b>		
<b>MPL-207A</b>	<i>Energy, Climate Change and Urban Development</i>	20
<b>MPL-207B</b>	<i>Community Planning and Participation</i>	25

## COURSE OUTCOMES

1. Techniques of costing and phasing
2. Methods and processes of social, economic and environmental appraisal of project
3. Scheduling projects and implementation strategy
4. Project financing

**Project:** Project Cost and Scheduling Appraisal and Implementation - Study area to be a ward/ sector of a metro city

### **MPL - 201: Urban Development Management and Governance**

#### **Urban Local Governance and its Reforms**

Urban local governance- type, organization, power , functions, resource, state supervision control and their working; improvement trust- organizations, scope of their powers and functions and their working; City development authorities: organizations, scope of their power and functions, resources, and their working; administrative reforms in local governance; Organisational Restructuring of Local Governments; capacity building; NGO's.

#### **Participatory Process in Urban Governance**

Stakeholder participation- roles and responsibilities, access to governments; Citizen Participation in urban development and management; Inter-organisational relations and coordination at local level; role of digital engagement and social media.

### **MPL – 203: POLITICS AND PLANNING**

#### **Politics and Civil Society**

Politics and emergence of civil society – NGO, CBO and their role in planning, development and management, collective bargaining and collective action.

### **MPL – 205: DEVELOPMENT FINANCE**

#### **Case Studies**

### **MPL – 207A: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT**

#### **Plans, Policies and Strategies.**

Related to energy planning, conservation, climate change mitigation and adaptation.

### **MPL – 207B: COMMUNITY PLANNING AND PARTICIPATION**

#### **Case Studies on Community Participation**

Detailed cases of community participation in areas of provision of housing/shelter, electricity, water supply, sanitation, solid waste disposal, transport , social infrastructure – health , education and cultural facilities; economic upliftment, resource mobilisation; maintenance and management of community assets

### **MPL – 209: URBAN RISK & DISASTER MANAGEMENT (Open Elective)**

#### **Urbanisation and Associated Risks**

Urbanisation patters, resource consumption and environment versus economy and their impacts; Resource Depletion and Pollution; Environmental Concerns and Challenges , impact of human activity on environment; Inter-relation with

urban risks; Causative factors; role of land-use planning, zoning and development control regulations in managing urban risks

### **Urban Risks and Climate Change**

Urban Risks- Definitions, Types and nature, Magnitude; Hazard, vulnerability and risks ; Climate Change-Risks and Resilience in cities.

### **Urban Risks Assessment**

Methods and approaches to urban risk assessment; hazard impact assessment, institutional assessment; socioeconomic assessment, Risk Mitigation and Risk Transfer; Causes and risk mitigation strategies for industrial, chemical and biological disasters.

### **Disaster Types and Impacts**

Disasters- Definitions, types and examples of disasters across the World; Natural disasters and manmade Calamities, Degree of Damage, Frequency of Occurrences and Other Historical Facts; Classification of Disasters in India; Impacts of disasters, land use planning, building bye laws and disaster safe construction practices for different types of disasters

### **Disaster Vulnerability Preparedness**

Identification of Disaster prone areas; Forecasting and early warning systems for various types of disasters; communication and information technology in disaster management; Disaster Vulnerability Mapping; Disaster Preparedness, Response and Post Disaster Recovery and Rehabilitation Measures; Disaster management principles; local, district and State disaster management groups , structures and functions; prevention and preparedness activities; response and recovery activities; disaster declaration arrangements.

### **Disaster Mitigation and Management**

Kyoto Framework of Disaster Mitigation and Management; Disaster Management Policies and Act –National and States; Select Global Practices. Disaster Coordination Centres – functions, logistics, operations and planning; Developing and Assessing Disaster Management Plans; Community engagement; Standard Emergency Warning Signal (SEWS); and the Emergency Alert System, Basic Principles of Incident Command System – Facilities, Resource Management, Event Planning Process, Emergency response management principles and concepts; ICT in emergency responses and management;

## Semester IV

Module 16		M 16
Subject Code	Subject Name	Max Marks
MPL-202	Planning Legislation and Professional Practice	20
MPL-252	Thesis	10
Departmental Electives (Any one to be opted)		
MPL-204A	Inclusive Cities	
MPL-204B	Urban Development Policies	20

### COURSE OUTCOMES

1. Application of knowledge thus gained on a specific project
2. Indepth knowledge of one specific theme
3. Application of advanced statistical and spatial analysis
4. Undertaking and managing field work single handedly

#### Project: Thesis

#### MPL – 202: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

##### Concept of Legislation

Significance and Objectives of Legislation; Constitutional basis and provisions relating to land, its development and use; Overview of legal tools in various components of Urban Planning & Development;

#### MPL – 204A: INCLUSIVE CITIES

##### Importance of Inclusive Development

Urban development patterns, inequities and need for Inclusive development, growth of informal sector, Needs, access to shelter, services and livelihoods of informal sector; Understanding inclusive growth concept, theories and components; essential dimensions of inclusive planning

#### MPL – 204B: URBAN DEVELOPMENT POLICIES

##### Public Policy and Planning

Nature of public problems, planning as a public issue, policy process, limitations in public and private Sector; Strategic policy planning; Overview of policy analysis- scope, significance and contextual perspectives, Public policy delivery agencies and Implementers; Public policy implementation: Gaps and problems

Module 17		M 17
Subject Code	Subject Name	Max Marks
MPL-202	Planning Legislation and Professional Practice	20
MPL-252	Thesis	10
Departmental Electives (Any one to be opted)		
MPL-204A	Inclusive Cities	
MPL-204B	Urban Development Policies	20

### COURSE OUTCOMES

1. Application of knowledge thus gained on a specific project
2. In depth knowledge of one specific theme
3. Application of advanced statistical and spatial analysis
4. Undertaking and managing field work single handedly

## **MPL – 202: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE**

### **Planning Legislation**

Evolution of Planning Legislation in India; Types and description of various Acts- Town and Country Planning Acts, Improvement Trust Act, Urban Planning and Development Authorities Act- objectives, contents, procedures for preparation and implementation of regional plans, master plans and town planning schemes; Various Acts related to urban governance; land resources, environment protection, public participation in statutory process.

## **MPL – 204A: INCLUSIVE CITIES**

### **Stakeholders in Inclusive Urban Development**

Disadvantaged groups –urban poor, informal sector, gender, children, elderly, disabled, displaced people; Causative factors, determinants, informal sector- location characteristics, functions, economic contributions, linkages with formal sector; impact of informal sector on urban development

## **MPL – 204B: URBAN DEVELOPMENT POLICIES**

### **Policy Making Process**

Policy Process - problem definition, policy objectives and options, policy implementation, policy evaluation and maintenance; Policy making approaches- Power approaches, Institutional approaches, Strategic Planning, Rational approach and Simon's Rationality Model; Decision-making process and techniques; Policy monitoring- approaches and techniques; Role of non-officials in policy making; Intergovernmental relations and public policy issues; Public policy implementation. Approaches and models; Inter-organizational relations and public policy implementation;

<b>Module 18</b>		<b>M 18</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
MPL-202	Planning Legislation and Professional Practice	20
MPL-252	Thesis	10
<b>Departmental Electives (Any one to be opted)</b>		
MPL-204A	Inclusive Cities	
MPL-204B	Urban Development Policies	20

## **COURSE OUTCOMES**

1. Application of knowledge thus gained on a specific project
2. Indepth knowledge of one specific theme
3. Application of advanced statistical and spatial analysis
4. Undertaking and managing field work single handedly

### **Project: Thesis**

## **MPL – 202: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE**

### **Planning and Development Organizations**

Town & Country Planning Organization, Urban Development Departments , City Improvement Trust, Development Authorities, Municipal Corporation etc. – objectives, functions and duties, organisational structure, technical capacity , statutory obligations, budgetary outlays; coordination and implementation issues

## **MPL – 204A: INCLUSIVE CITIES**

### **Principle of Inclusive City Planning**

Inclusive city planning- Need, concept and pre-requisites, Affordable housing; resilient and sustainable urban form; social and economic development; key principles- Sustainability and Resilience, Accessibility, Diversity, Open Spaces, Compatibility, Incentives, Adaptability and Identity

## **MPL – 204B: URBAN DEVELOPMENT POLICIES**

### **Policy Scenario Building and Evaluation**

Techniques and approaches to policy building; policy evaluation Indicators; policy scenarios formulation; Policy evaluation- role, process and criteria; Policy implementation; performance evaluation and impact.



<b>Module 19</b>		<b>M 19</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
MPL-202	Planning Legislation and Professional Practice	20
MPL-252	Thesis	10
<b>Departmental Electives (Any one to be opted)</b>		
MPL-204A	Inclusive Cities	
MPL-204B	Urban Development Policies	20

## COURSE OUTCOMES

1. Application of knowledge thus gained on a specific project
2. Indepth knowledge of one specific theme
3. Application of advanced statistical and spatial analysis

### Project: Thesis

#### MPL – 202: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

##### Public Participation in Planning Process

Role of interdisciplinary groups; community participation process in planning; Appreciation of the decision-making processes, process in relation to varied consultancy assignments of planning.

##### Professional Activities and Responsibilities

Aims and objectives of professional institutes and bodies in planning; professional roles and responsibilities of planning consultants; professional ethics; responsibilities towards clients, fellow professionals and general public; Scope of services for different projects; Consultancy agreements and safeguards; Fees and scales of professional charges; negotiation, liability, code of conduct, arbitration

#### MPL – 204A: INCLUSIVE CITIES

##### Participatory Planning for Inclusive Development

Importance of participatory planning for inclusive development; approaches and methods, of participatory planning, role of stakeholders (including civil society organizations) , constraints, prerequisites

##### Management of Inclusive Cities

Management of inclusive cities- need and approaches- Inclusive zoning, development and building regulations, slum improvement; related acts; five year plans, policies and programmes.

#### MPL – 204B: URBAN DEVELOPMENT POLICIES

##### Urban Development Policies in India

National Urban Sanitation Policy, National Urban Housing & Habitat Policy, National Policy for Urban Street Vendors , National Environmental Policy , National Urban Transport Policy , National Water Policy, National Policy on Energy; Emerging policies and programmes of government JNNURM, AMRUT , HRIDAY etc.



<b>Module 20</b>		<b>M 20</b>
<b>Subject Code</b>	<b>Subject Name</b>	<b>Max Marks</b>
MPL-202	Planning Legislation and Professional Practice	20
MPL-252	Thesis	10
<b>Departmental Electives (Any one to be opted)</b>		
MPL-204A	Inclusive Cities	
MPL-204B	Urban Development Policies	20

## **COURSE OUTCOMES**

1. Application of knowledge thus gained on a specific project
2. Indepth knowledge of one specific theme
3. Application of advanced statistical and spatial analysis
4. Undertaking and managing field work single handedly

### **Project: Thesis**

#### **MPL – 202: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE**

##### **Project Formulation and Implementation**

Project context; Project rationale and objectives; Bid documents, Tenders, Contracts ; Implementation approaches and methods, Work plan, Budget, Assumptions, risks and sustainability; Implementation arrangements; Organizational structure and stakeholder involvement mechanisms; Reporting, review, monitoring and evaluation; Dissemination and mainstreaming of project learning

#### **MPL – 204A: INCLUSIVE CITIES**

##### **Best Practices of Inclusive City Planning**

Policies for inclusive city planning; Best practices of inclusive Planning in India and abroad-planning approach, procedures and impacts, inter-disciplinary policy issues ,public action and participation for guiding inclusive planning in cities

#### **MPL – 204B: URBAN DEVELOPMENT POLICIES**

##### **Emerging Policy Thrust Areas**

Policies to promote efficient urban spatial development ; development of eco-friendly neighbourhoods; flexible FSI in urban design and planning; transport and land use integration ; integrated spatial and economic planning; inclusionary zoning regulations; renewal of neglected historic districts and derelict inner city areas ; integrating environment in urban planning and development; green urban economy approach; environment and social opportunities of densities; green urban infrastructure ; green urban governance

##### **Case Studies on Urban Development Policies**

Best practices of urban development and planning policies- approach and impacts; procedure and inter-disciplinary issues related to policies.